ELSEVIER International Journal of Mass Spectrometry and Ion Processes 167/168 (1997) 771

International Journal of Mass Spectrometry and Ion Processes

Author index

Aaserud, D.J., 705
Achatz, U., 723
Albert, G., 723
Amft, M., 661
Anderson, S.L., 269
Armentrout, P.B., 195
Astratov, M., 481

Baer, T., 389
Barasch, D., 79
Barran, P.E., 127
Baumgärtel, H., 35
Becker, H., 519
Becker, K., 69, 503
Bekkerman, A., 559
Bell, R.C., 615
Bensimon, M., 173
Berg, C., 723
Bernhardt, T.M., 161
Beyer, M., 723
Bierbaum, V.M., 281, 587
Bieske, E.J., 637
Bohme, D.K., 519
Bondybey, V.E., 723
Bouchoux, G., 353
Bowers, M.T., 605
Bruder, A., 55
Budrevich, A., 559
Burgers, P.C., 291
Byrd, H.C.M., 403

Campbell, E.E.B., 127
Castleman, Jr. A.W., 615
Castro, L.M., 403
Chen, H., 713
Chen, Q., 713
Chen, Y.-M., 195
Chupka, W.A., 595
Cooks, R.G., 525

de Gouw, J.A., 281
de Koning, L.J., 135
DePuy, C.H., 587
Deng, H.T., 615
Denisov, E.V., 259
Deutsch, H., 79, 503
Deutsch, J., 79
Di-Capua, S., 79
Dolejšek, Z., 675
Dopfer, O., 637
Dotan, I., 223
Dschöder, D., 103
Dunbar, R.C., 627

Echt, O., 753
Eckwert, J., 269
Eland, J.H.D., 415

Fell, L.M., 291
Feng, B., 525
Ferreira, M.A.A., 471
Firth, S., 127
Freiser, B.S., 713
Futrell, J., 317

Gal, J.-F., 689
Gäumann, T., 173
Giam, C.S., 425
Grebner, Th.L., 649
Grotemeyer, J., 661
Grützmacher, H.-F., 335
Guan, S., 185
Guan, Z., 705
Gur, E.H., 135

Hahndorf, I., 87
Halperin, G., 79
Hansel, A., 697
Hansen, K., 127
Harrison, A.G., 213
Harting, N., 335
Hase, W.L., 573
Hayakawa, S., 525
Herman, Z., 675
Heusler, A., 173
Hierl, P.M., 223
Holmes, J.L., 231
Hrušák, J., 675
Hsieh, S., 415
Hudson, C.E., 425
Hwang, C.T., 403

Illenberger, E., 87
Illies, A.J., 431

Jang, H.G., 79
Jennings, K.R., 735
Jochims, H.W., 35
Joos, S., 723

Kaiser, B., 161
Kenttämaa, H.L., 403
Kerns, K.P., 615
Kiendler, A., 1
Kim, Y., 309
Kinne, M., 161
Klippenstein, S.J., 235
Klots, C.E., 595, 753
Kolodney, E., 559
Kretzschmar, I., 103
Krishnamurthy, M., 281
Kroto, H.W., 127
Kuck, D., 55
Kuhnen, F., 761

Łapicki, A., 269
Leach, S., 35
Lee, H.S., 587
Lee, S., 605
Leone, S.R., 281
Levsen, K., 481
Li, G-Z., 185
Li, Z., 269
Liere, P., 735
Lin, C.-Y., 713
Lindinger, W., 697
Little, D.P., 705
Lorquet, A.J., 149
Lorquet, J.C., 149
Luna, A., 353

Maier, J.P., 637
Malát., J., 213
Mandelbaum, A., 13
Mark, T.D., 1
March, R.E., 735
Marshall, A.G., 185
Matejcik, S., 1

Matt, S., 753
Mayer, P.M., 389, 689
Mazyar, O.A., 389
Märk, T.D., 1, 503, 753
McAdoo, D.J., 425
McLafferty, F.W., 705
Medina, R., 259
Meuwly, M., 637
Milliet, A., 291
Morelender-Vais, N., 13
Moritz, F., 661
Morris, R.A., 223
Morton, T.H., 431

Neusser, H.J., 649
Nibbering, N.M.M., 135
Niedner-Schatteburg, G., 723
Nikolaev, E.N., 259
Nizkorodov, S.A., 637

Oblinger, M., 149
Øiestad, A.M.L., 117
Oliveira, M.C., 471

Polce, M.J., 309
Preiß, A., 481

Rademann, K., 161
Radom, L., 689
Ramana, D.V., 55
Rempp, M., 291
Ruttink, J.A., 291
Rühl, E., 35
Ryzhov, V., 627

Schanen, P., 447
Scheier, P., 753
Schindler, T., 723
Schlag, E.W., 447
Schröder, D., 103
Schwarz, H., 103
Schwarzmann, M., 697
Scott, L.T., 519
Seburg, R.A., 541
Shukla, A., 317
Shustryakov, V., 259
Sievers, M.R., 195
Singer, W., 697
Smith, D., 1, 375
Spanel, P., 1, 375
Spieß, I., 761
Squires, R.R., 541
Stace, A.J., 127
Steiner, V., 735
Stumpf, R., 649

Tabet, J.C., 735
Tarnovsky, V., 69
Terlouw, J.K., 291
Thielking, G., 335
Tobita, S., 35
Tortajada, J., 353
Tosh, R., 317
Traeger, J.C., 425
Tsipinyuk, B., 559

Uggerud, E., 117

Viggiano, A.A., 223
Vincze, A., 21

Wanczek, K.P., 761
Wang, H., 573
Weickhardt, C., 661
Weinkauf, R., 447
Wesdemiotis, C., 309
Winkler, F.J., 259
Wisthaler, A., 697
Wörgötter, R., 753
Wünsch, G., 481
Wyttenbach, T., 605

Yang, D., 447
Yinon, J., 21
Yu, Y.-Q., 403

Zabka, J., 675
Zagorevskii, D.V., 231
Zdeněk, Ž., 675
Zhao, R., 317

ELSEVIER International Journal of Mass Spectrometry and Ion Processes 167/168 (1997) 773–780

Subject index

1,2-Diphenylethane
Electron-impact-induced fragmentation of long-lived $C_{14}H_{14}^+$ ions from dibenzyl sulphone and 1,2-diphenylethane 55
1,2-propanediol
The dissociation of low energy 1,2-propanediol ions: an intriguing mechanism revisited 291
Ab initio calculation
The dissociation of low energy 1,2-propanediol ions: an intriguing mechanism revisited 291
Ab initio calculations
Loss of H_2 from $CH_2NH_2^+$ and $NHNH_2^+$. Reaction mechanisms and dynamics from observation of metastable ion fragmentations and ab initio calculations 117
Ab initio study of the reaction $C_2H_4^+ \rightarrow C_2H_3^+ + H$ 149
Ab initio reaction path energetics for the CX dissociations of $C_6H_5X^+$ with X = H, F, Cl, and Br 235
The heats of formation, gas-phase acidities, and related thermochemical properties of the third-row hydrides GeH_4, AsH_3, SeH_2 and HBr from G2 ab initio calculations 689
Ab initio studies
Microsolvation of the ammonium ion in argon: infrared spectra of NH_4^+-Ar_n complexes ($n = 1$–7) 637
Absorption spectra
VUV peaks in absorption spectra and photoion yield curves of polycyclic aromatic hydrocarbons and related compounds 35
Additivity rule
A modified additivity rule for the calculation of electron impact ionization cross-section of molecules AB_n 503
Adduct ion formation
Efficient cationization by Cs^+ adduct ion formation in a supersonic beam 447
Aldehyde radical cations
Electron and proton transfer reactions of simple aldehyde and ketone radical cations and their enol and distonic isomers 403
Alkali ions
Efficient cationization by Cs^+ adduct ion formation in a supersonic beam 447
Alkane activation
Activation of CH_4, C_2H_6, C_3H_8, and c-C_3H_6 by gas-phase Pd^+ and the thermochemistry of Pd–ligand complexes 195
AM1 and PM3 calculations
FT ICR investigations of chiral supramolecular propellers of dialkyltartrate trimers with methylammonium ions 259
Aminocarbene
First experimental characterization of aminocarbene 309
Ammunition hazardous waste sites
Identification of pollutants in ammunition hazardous waste sites by thermospray HPLC/MS 481
Appearance energy
Relative dissociation energies of singly and doubly charged fullerene ions, C_n^{z+}, for $n = 52$ to 70 753
Atmospheric pressure chemical ionization (APCI)
Identification of pollutants in ammunition hazardous waste sites by thermospray HPLC/MS 481

Benzene cation
Ab initio reaction path energetics for the CX dissociations of $C_6H_5X^+$ with X = H, F, Cl, and Br 235
Benzylium ion
The tropylium/benzylium ion dichotomy in the gas-phase reactions of transition metal chalcogenide cations with toluene 103
Black-body
Radiative energy loss from hot C_{60} molecules 595
Blackbody infrared radiative dissociation
DNA sequencing with blackbody infrared radiative dissociation of electrosprayed ions 705
Bond energies
Activation of CH_4, C_2H_6, C_3H_8, and c-C_3H_6 by gas-phase Pd^+ and the thermochemistry of Pd–ligand complexes 195
Breakdown diagrams
A PEPICO study of five energy-selected $C_6H_{12}^+$ isomeric molecular ions. Part 1 471

C–H bond activation
The tropylium/benzylium ion dichotomy in the gas-phase reactions of transition metal chalcogenide

cations with toluene 103
$C_6H_{12}^+$ isomers
A PEPICO study of five energy-selected $C_6H_{12}^+$ isomeric molecular ions. Part 1 471
$C_6H_5X^+$
Ab initio reaction path energetics for the CX dissociations of $C_6H_5X^+$ with X = H, F, Cl, and Br 235
Carbamate and phenylurea pesticides
Collision-induced dissociation (CID) processes in some carbamate and phenylurea pesticides studied by ion-trap MS/MS 21
Cationization
Efficient cationization by Cs^+ adduct ion formation in a supersonic beam 447
Cations
Heptene radical cations: how well is the double bond localized? 173
$CH_2NH_2^+$
Loss of H_2 from $CH_2NH_2^+$ and $NHNH_2^+$. Reaction mechanisms and dynamics from observation of metastable ion fragmentations and ab initio calculations 117
Charge transfer
Chemistry and charge transfer phenomena in water cluster cations 723
Charge transfer trace gas analysis
SIFT studies of the reactions of H_3O^+, NO^+ and O_2^+ with a series of alcohols 375
Chemical ionization
Proton transfer between functional groups in MH^+ ions of stereoisomeric diethers on chemical ionization and collision-induced dissociation conditions 13
Chemical reactivity
The influence of surface strain on the chemical reactivity of fullerene ions: addition reactions with cyclopentadiene and 1,3-cyclohexadiene 519
Chemical spattering
Differentiation of isomeric $C_3H^{+\cdot}_4$ ions and $T \rightarrow V$ energy partitioning in surface-induced dissociation 525
Chiral recognition
FT ICR investigations of chiral supramolecular propellers of dialkyltartrate trimers with methylammonium ions 259
Chromatography
Gas phase structures of sodiated oligosaccharides by ion mobility/ion chromatography methods 605
Cluster
Measured and calculated mobilities of cluster ions drifting in helium and in nitrogen 281
Clusters
Formation and stability of antimony and bismuth oxide clusters: a mass spectrometric investigation 161
Oxidation induced ionization and reactions of metal carbide clusters (Nb, Zr, V, Ta) 615
Collision-induced dissociation
Proton transfer between functional groups in MH^+ ions of stereoisomeric diethers on chemical ionization and collision-induced dissociation conditions 13
Collision-induced dissociation (CID) processes in some carbamate and phenylurea pesticides studied by ion-trap MS/MS 21
Low energy, high resolution ion scattering mass spectrometry of strained molecules and their isomers 269
The electron affinity of cyclopropyl radical measured by the kinetic method 541
Collisional activation
Differentiation of isomeric $C_3H^{+\cdot}_4$ ions and $T \rightarrow V$ energy partitioning in surface-induced dissociation 525
Conrevolution
Strong hydrogen bonding in the gas phase: fluoromethane···hydronium versus fluoromethane···ammonium 431
Corannulene
The influence of surface strain on the chemical reactivity of fullerene ions: addition reactions with cyclopentadiene and 1,3-cyclohexadiene 519
Coronene
The influence of surface strain on the chemical reactivity of fullerene ions: addition reactions with cyclopentadiene and 1,3-cyclohexadiene 519
Cross sections
Cross-section for the electron impact ionization of ND_x ($x = 1 - 3$) 69
A modified additivity rule for the calculation of electron impact ionization cross-section of molecules AB_n 503
Crossed beams
A coordinated flowing afterglow and crossed beam study of electron attachment to CCl_3Br 1
Cyclization
An electron impact and chemical ionization study of some diethyl dicarboxylates 213
Cyclopropyl radical
The electron affinity of cyclopropyl radical measured by the kinetic method 541

Dibenzo-*p*-dioxin
Mass analyzed threshold ionization of van der Waals complexes: Binding energies of dibenzofuran·Ar and dibenzo-*p*-dioxin·Ar 649
Dibenzofuran
Mass analyzed threshold ionization of van der Waals complexes: Binding energies of dibenzofuran·Ar and

dibenzo-*p*-dioxin·Ar 649
Dibenzyl sulphone
Electron-impact-induced fragmentation of long-lived $C_{14}H_{14}^+$ ions from dibenzyl sulphone and 1,2-diphenylethane 55
Diels–Alder addition
The influence of surface strain on the chemical reactivity of fullerene ions: addition reactions with cyclopentadiene and 1,3-cyclohexadiene 519
Diethyl dicarboxylates
An electron impact and chemical ionization study of some diethyl dicarboxylates 213
Dipeptides
The bimolecular gas-phase reaction of protonated alkyldipeptides with acetonylacetone 135
Dissociation energies
Stability of carbon clusters C_N for $46 \leq N \leq 102$ 127
Dissociation energy
Mass analyzed threshold ionization of van der Waals complexes: Binding energies of dibenzofuran·Ar and dibenzo-*p*-dioxin·Ar 649
Relative dissociation energies of singly and doubly charged fullerene ions, C_n^{z+}, for $n = 52$ to 70 753
Dissociation onsets
A PEPICO study of five energy-selected $C_6H_{12}^+$ isomeric molecular ions. Part 1 471
Dissociation rates
A PEPICO study of five energy-selected $C_6H_{12}^+$ isomeric molecular ions. Part 1 471
Distonic ion
Rearrangement and dissociative processes in the $[C_3H_6O]^+$ potential energy surface. Radical cations with the CCCO frame: a model system 353
DNA
DNA sequencing with blackbody infrared radiative dissociation of electrosprayed ions 705
Double bond
Heptene radical cations: how well is the double bond localized? 173
Drift tube
Measured and calculated mobilities of cluster ions drifting in helium and in nitrogen 281

Electron affinity
The electron affinity of cyclopropyl radical measured by the kinetic method 541
Electron attachment
A coordinated flowing afterglow and crossed beam study of electron attachment to CCl_3Br 1
Temperature dependence of electron attachment processes 87
Electron impact
Mass spectral determination of the configuration of 17β-tetrahydropyranyloxy-19-norandrostan-3β-ol 79
Electron impact ionization
Cross-section for the electron impact ionization of ND_x ($x = 1 - 3$) 69
Electron ionization
A modified additivity rule for the calculation of electron impact ionization cross-section of molecules AB_n 503
Electron transfer
Electron and proton transfer reactions of simple aldehyde and ketone radical cations and their enol and distonic isomers 403
Electron-impact-induced fragmentation
Electron-impact-induced fragmentation of long-lived $C_{14}H_{14}^+$ ions from dibenzyl sulphone and 1,2-diphenylethane 55
Electrospray
DNA sequencing with blackbody infrared radiative dissociation of electrosprayed ions 705
Electrospray (ESP)
Identification of pollutants in ammunition hazardous waste sites by thermospray HPLC/MS 481
End radical cations
Electron and proton transfer reactions of simple aldehyde and ketone radical cations and their enol and distonic isomers 403
Energy partition
Differentiation of isomeric $C_3H^{+\cdot}{}_4$ ions and $T \rightarrow V$ energy partitioning in surface-induced dissociation 525
Energy resolved mass spectra
Differentiation of isomeric $C_3H^{+\cdot}{}_4$ ions and $T \rightarrow V$ energy partitioning in surface-induced dissociation 525
Equilibrium
Strong hydrogen bonding in the gas phase: fluoromethane···hydronium versus fluoromethane···ammonium 431
Ethylene
Ab initio study of the reaction $C_2H_4^+ \rightarrow C_2H_3^+ + H$ 149
Explosives
Identification of pollutants in ammunition hazardous waste sites by thermospray HPLC/MS 481

FA-SIFT
Hydrogen/deuterium exchange in the reactions of methyl cation with methane 587
$Fe(CO)_5^{2+}$
Photodissociation dynamics of doubly charged iron pentacarbonyl $Fe(CO)_5^{2+}$ 415
Flowing afterglow

A coordinated flowing afterglow and crossed beam study of electron attachment to CCl_3Br 1
Formaldimine
First experimental characterization of aminocarbene 309
Fourier transform ICR
FT ICR investigations of chiral supramolecular propellers of dialkyltartrate trimers with methylammonium ions 259
Fourier transform ion cyclotron resonance
The bimolecular gas-phase reaction of protonated alkyldipeptides with acetonylacetone 135
Size dependence of radiative association rates 627
DNA sequencing with blackbody infrared radiative dissociation of electrosprayed ions 705
Fragmentation time dependence
Heptene radical cations: how well is the double bond localized? 173
FT ICR
Theoretical comparison of closed and open ICR cells 761
FT-ICR
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
FT-MS
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
FTICR
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
FTMS
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
Fullerene ions
The influence of surface strain on the chemical reactivity of fullerene ions: addition reactions with cyclopentadiene and 1,3-cyclohexadiene 519
Relative dissociation energies of singly and doubly charged fullerene ions, C_n^{z+}, for $n = 52$ to 70 753
Fullerenes
Kinetic energy losses and vibrational excitation in hyperthermal C_{60}-surface scattering: dependence on vibrational energy of the incident molecule 559
Fullerenes
Stability of carbon clusters C_N for $46 \leq N \leq 102$ 127
Functional groups
Proton transfer between functional groups in MH^+ ions of stereoisomeric diethers on chemical ionization and collision-induced dissociation conditions 13
G2 theory
The heats of formation, gas-phase acidities, and related thermochemical properties of the third-row hydrides GeH_4, AsH_3, SeH_2 and HBr from G2 ab initio calculations 689
Gas aggregation
Formation and stability of antimony and bismuth oxide clusters: a mass spectrometric investigation 161
Geometrical
Rearrangement and dissociative processes in the $[C_3H_6O]^+$ potential energy surface. Radical cations with the CCCO frame: a model system 353
Geometry considerations
Theoretical comparison of closed and open ICR cells 761
Guided ion beam
Activation of CH_4, C_2H_6, C_3H_8, and c-C_3H_6 by gas-phase Pd^+ and the thermochemistry of Pd–ligand complexes 195

H/D exchange
Hydrogen/deuterium exchange in the reactions of methyl cation with methane 587
Hard-sphere
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
Heptene
Heptene radical cations: how well is the double bond localized? 173
HPLC/MS
Identification of pollutants in ammunition hazardous waste sites by thermospray HPLC/MS 481
Hydride ion transfer
SIFT studies of the reactions of H_3O^+, NO^+ and O_2^+ with a series of alcohols 375
Hydroxide ion transfer
SIFT studies of the reactions of H_3O^+, NO^+ and O_2^+ with a series of alcohols 375

Infrared photodissociation spectroscopy
Microsolvation of the ammonium ion in argon: infrared spectra of NH_4^+-Ar_n complexes ($n = 1$–7) 637
Internal energy
Influence of ion activation and thermalization effects on reaction rate constants in a quadrupole ion trap mass spectrometer 735
Ion
Measured and calculated mobilities of cluster ions drifting in helium and in nitrogen 281
Ion chemistry
Rate constants for the reactions of N^+ and N_2^+ with O_2

as a function of temperature (300–1800 K) 223
Ion mobility
Gas phase structures of sodiated oligosaccharides by ion mobility/ion chromatography methods 605
Ion structure
Differentiation of isomeric $C_3H^{+\cdot}_4$ ions and $T \rightarrow V$ energy partitioning in surface-induced dissociation 525
Ion structures
The heat of formation of the $[C_6H_5,O]^+$ isomeric ion, protonated 6-oxafulvalene 231
Ion trap
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
Ion trap mass spectrometry
Influence of ion activation and thermalization effects on reaction rate constants in a quadrupole ion trap mass spectrometer 735
Ion-trap MS/MS
Collision-induced dissociation (CID) processes in some carbamate and phenylurea pesticides studied by ion-trap MS/MS 21
Ion–molecule reactions
SIFT studies of the reactions of H_3O^+, NO^+ and O_2^+ with a series of alcohols 375
Ion–molecule reactions
The bimolecular gas-phase reaction of protonated alkyldipeptides with acetonylacetone 135
Ion–molecule reaction
Influence of ion activation and thermalization effects on reaction rate constants in a quadrupole ion trap mass spectrometer 735
Ion–molecule reactions
Size dependence of radiative association rates 627
Ion–neutral complex
The dissociation of low energy 1,2-propanediol ions: an intriguing mechanism revisited 291
Ion/molecule reactions
The tropylium/benzylium ion dichotomy in the gas-phase reactions of transition metal chalcogenide cations with toluene 103
Ion/surface collisions
Differentiation of isomeric $C_3H^{+\cdot}_4$ ions and $T \rightarrow V$ energy partitioning in surface-induced dissociation 525
Ionic complexes
Microsolvation of the ammonium ion in argon: infrared spectra of NH_4^+-Ar_n complexes ($n = 1$–7) 637
Ionization energy
Mass analyzed threshold ionization of van der Waals complexes: Binding energies of dibenzofuran·Ar and dibenzo-*p*-dioxin·Ar 649
Ionization mechanisms
Oxidation induced ionization and reactions of metal carbide clusters (Nb, Zr, V, Ta) 615
Ionized allyl alcohol
Rearrangement and dissociative processes in the $[C_3H_6O]^+$ potential energy surface. Radical cations with the CCCO frame: a model system 353
Ionized enol
Rearrangement and dissociative processes in the $[C_3H_6O]^+$ potential energy surface. Radical cations with the CCCO frame: a model system 353
Ionized propanal
Rearrangement and dissociative processes in the $[C_3H_6O]^+$ potential energy surface. Radical cations with the CCCO frame: a model system 353
Ionosphere
Rate constants for the reactions of N^+ and N_2^+ with O_2 as a function of temperature (300–1800 K) 223
Isomer differentiation
First experimental characterization of aminocarbene 309
Isomer identification
Low energy, high resolution ion scattering mass spectrometry of strained molecules and their isomers 269
Isomeric differentiation
Differentiation of isomeric $C_3H^{+\cdot}_4$ ions and $T \rightarrow V$ energy partitioning in surface-induced dissociation 525
Isotope effects
Hydrogen/deuterium exchange in the reactions of methyl cation with methane 587
Isotope labelling
An electron impact and chemical ionization study of some diethyl dicarboxylates 213
Isotopic labeling
Heptene radical cations: how well is the double bond localized? 173
IT-ICR spectrometry
Chemistry and charge transfer phenomena in water cluster cations 723

Ketone radical cations
Electron and proton transfer reactions of simple aldehyde and ketone radical cations and their enol and distonic isomers 403
Kinetic energy release
An electron impact and chemical ionization study of some diethyl dicarboxylates 213
Kinetic method
The electron affinity of cyclopropyl radical measured by the kinetic method 541
Kinetics

Rate constants for the reactions of N^+ and N_2^+ with O_2 as a function of temperature (300–1800 K) 223
Size dependence of radiative association rates 627

Langevin
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
Large molecules
Efficient cationization by Cs^+ adduct ion formation in a supersonic beam 447
Line shape
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
Long-lived $C_{14}H_{14}^+$ ions
Electron-impact-induced fragmentation of long-lived $C_{14}H_{14}^+$ ions from dibenzyl sulphone and 1,2-diphenylethane 55
Loss of H_2
Loss of H_2 from $CH_2NH_2^+$ and $NHNH_2^+$. Reaction mechanisms and dynamics from observation of metastable ion fragmentations and ab initio calculations 117

MALDI
Gas phase structures of sodiated oligosaccharides by ion mobility/ion chromatography methods 605
Mass analyzed threshold ionization (MATI) spectroscopy
Mass analyzed threshold ionization of van der Waals complexes: Binding energies of dibenzofuran·Ar and dibenzo-*p*-dioxin·Ar 649
Mass resolution
Instrumental measures to enhance the mass resolution in matrix assisted laser desorption/ionization (MALDI) time-of-flight experiments: computational simulations and experimental observations 661
Mass spectrometry
Mass spectral determination of the configuration of 17β-tetrahydropyranyloxy-19-norandrostan-3β-ol 79
Formation and stability of antimony and bismuth oxide clusters: a mass spectrometric investigation 161
Heptene radical cations: how well is the double bond localized? 173
Matrix assisted laser desorption/ionization
Instrumental measures to enhance the mass resolution in matrix assisted laser desorption/ionization (MALDI) time-of-flight experiments: computational simulations and experimental observations 661
Met-cars
Oxidation induced ionization and reactions of metal carbide clusters (Nb, Zr, V, Ta) 615
Metal carbides
Oxidation induced ionization and reactions of metal carbide clusters (Nb, Zr, V, Ta) 615
Metal cation solvation
Chemistry and charge transfer phenomena in water cluster cations 723
Metal oxides
Formation and stability of antimony and bismuth oxide clusters: a mass spectrometric investigation 161
Metastable fragmentation
Stability of carbon clusters C_N for $46 \leq N \leq 102$ 127
Metastable ion fragmentations
Loss of H_2 from $CH_2NH_2^+$ and $NHNH_2^+$. Reaction mechanisms and dynamics from observation of metastable ion fragmentations and ab initio calculations 117
Methyl cation
Hydrogen/deuterium exchange in the reactions of methyl cation with methane 587
MH^+ ions
Proton transfer between functional groups in MH^+ ions of stereoisomeric diethers on chemical ionization and collision-induced dissociation conditions 13
Mobility
Measured and calculated mobilities of cluster ions drifting in helium and in nitrogen 281
Molecular clusters
Chemistry and charge transfer phenomena in water cluster cations 723
Molecular orbit
Rearrangement and dissociative processes in the $[C_3H_6O]^+$ potential energy surface. Radical cations with the CCCO frame: a model system 353
Molecules
A modified additivity rule for the calculation of electron impact ionization cross-section of molecules AB_n 503

ND_x ($x = 1 - 3$)
Cross-section for the electron impact ionization of ND_x ($x = 1 - 3$) 69
Negative ions
A coordinated flowing afterglow and crossed beam study of electron attachment to CCl_3Br 1
Neutralization–reionization
First experimental characterization of aminocarbene 309
NH_4^+-Ar_n
Microsolvation of the ammonium ion in argon: infrared spectra of NH_4^+-Ar_n complexes ($n = 1$–7) 637

$NHNH_2^+$
Loss of H_2 from $CH_2NH_2^+$ and $NHNH_2^+$. Reaction mechanisms and dynamics from observation of metastable ion fragmentations and ab initio calculations 117
Nitrogen
Rate constants for the reactions of N^+ and N_2^+ with O_2 as a function of temperature (300–1800 K) 223
Norbornadiene
Low energy, high resolution ion scattering mass spectrometry of strained molecules and their isomers 269

Oligosaccharides
Gas phase structures of sodiated oligosaccharides by ion mobility/ion chromatography methods 605
Open ICR cells
Theoretical comparison of closed and open ICR cells 761
Oxygen
Rate constants for the reactions of N^+ and N_2^+ with O_2 as a function of temperature (300–1800 K) 223

p-Substituted butylbenzene
Influence of ion activation and thermalization effects on reaction rate constants in a quadrupole ion trap mass spectrometer 735
Palladium
Activation of CH_4, C_2H_6, C_3H_8, and c-C_3H_6 by gas-phase Pd^+ and the thermochemistry of Pd–ligand complexes 195
Paul trap
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185
PEPICO
A PEPICO study of five energy-selected $C_6H_{12}^+$ isomeric molecular ions. Part 1 471
Photoion yield curves
VUV peaks in absorption spectra and photoion yield curves of polycyclic aromatic hydrocarbons and related compounds 35
Photoionisation mass spectrometry
Photodissociation dynamics of doubly charged iron pentacarbonyl $Fe(CO)_5^{2+}$ 415
Polycyclic aromatic hydrocarbons
VUV peaks in absorption spectra and photoion yield curves of polycyclic aromatic hydrocarbons and related compounds 35
Positive ions
Rate constants for the reactions of N^+ and N_2^+ with O_2 as a function of temperature (300–1800 K) 223
Potential energy surface
Ab initio study of the reaction $C_2H_4^+ \rightarrow C_2H_3^+ + H$ 149
Proton bridge
Strong hydrogen bonding in the gas phase: fluoromethane···hydronium versus fluoromethane···ammonium 431
Proton transfer
Proton transfer between functional groups in MH^+ ions of stereoisomeric diethers on chemical ionization and collision-induced dissociation conditions 13
SIFT studies of the reactions of H_3O^+, NO^+ and O_2^+ with a series of alcohols 375
Electron and proton transfer reactions of simple aldehyde and ketone radical cations and their enol and distonic isomers 403
Proton transfer reaction mass spectrometry
Energy dependencies of the proton transfer reactions $H_3O^+ + CH_2O \Leftrightarrow CH_2OH^+ + H_2O$ 697
Proton-bound clusters
FT ICR investigations of chiral supramolecular propellers of dialkyltartrate trimers with methylammonium ions 259
Protonated formaldehyde
Energy dependencies of the proton transfer reactions $H_3O^+ + CH_2O \Leftrightarrow CH_2OH^+ + H_2O$ 697
Protonated water
Energy dependencies of the proton transfer reactions $H_3O^+ + CH_2O \Leftrightarrow CH_2OH^+ + H_2O$ 697

Quadricyclane
Low energy, high resolution ion scattering mass spectrometry of strained molecules and their isomers 269
Quadrupole
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185

Radiation
Radiative energy loss from hot C_{60} molecules 595
Radiative association
Size dependence of radiative association rates 627
Rate constant
Influence of ion activation and thermalization effects on reaction rate constants in a quadrupole ion trap mass spectrometer 735
Reaction path energetics
Ab initio reaction path energetics for the CX dissociations of $C_6H_5X^+$ with X = H, F, Cl, and Br 235
Relaxation
Effect of ion-neutral collison mechanism on the trapped-ion equation of motion: a new mass spectral line shape for high-mass trapped ions 185

Reorientation
Strong hydrogen bonding in the gas phase: fluoromethane···hydronium versus fluoromethane···ammonium 431
RRKM theory
Ab initio study of the reaction $C_2H_4^+ \rightarrow C_2H_3^+ + H$ 149

SIFT
SIFT studies of the reactions of H_3O^+, NO^+ and O_2^+ with a series of alcohols 375
Solvation
Microsolvation of the ammonium ion in argon: infrared spectra of NH_4^+-Ar_n complexes ($n = 1$–7) 637
Statistical distributions
Hydrogen/deuterium exchange in the reactions of methyl cation with methane 587
Stereochemistry
Mass spectral determination of the configuration of 17β-tetrahydropyranyloxy-19-norandrostan-3β-ol 79
Stereoisomeric
Proton transfer between functional groups in MH^+ ions of stereoisomeric diethers on chemical ionization and collision-induced dissociation conditions 13
Steroids
Mass spectral determination of the configuration of 17β-tetrahydropyranyloxy-19-norandrostan-3β-ol 79
Strain
The influence of surface strain on the chemical reactivity of fullerene ions: addition reactions with cyclopentadiene and 1,3-cyclohexadiene 519
Supramolecular structures
FT ICR investigations of chiral supramolecular propellers of dialkyltartrate trimers with methylammonium ions 259
Surface scattering
Kinetic energy losses and vibrational excitation in hyperthermal C_{60}-surface scattering: dependence on vibrational energy of the incident molecule 559
Surface-induced dissociation
Differentiation of isomeric $C_3H^+_4$ ions and $T \rightarrow V$ energy partitioning in surface-induced dissociation 525

Tandem mass spectrometry
Low energy, high resolution ion scattering mass spectrometry of strained molecules and their isomers 269
The dissociation of low energy 1,2-propanediol ions: an intriguing mechanism revisited 291
Thermochemistry
Activation of CH_4, C_2H_6, C_3H_8, and c-C_3H_6 by gas-phase Pd^+ and the thermochemistry of Pd–ligand complexes 195
The heat of formation of the $[C_6H_5,O]^+$ isomeric ion, protonated 6-oxafulvalene 231
The heats of formation, gas-phase acidities, and related thermochemical properties of the third-row hydrides GeH_4, AsH_3, SeH_2 and HBr from G2 ab initio calculations 689
Thermospray (TSP)
Identification of pollutants in ammunition hazardous waste sites by thermospray HPLC/MS 481
Third-row hydrides
The heats of formation, gas-phase acidities, and related thermochemical properties of the third-row hydrides GeH_4, AsH_3, SeH_2 and HBr from G2 ab initio calculations 689
Time-of-flight mass spectrometry
Efficient cationization by Cs^+ adduct ion formation in a supersonic beam 447
Mass analyzed threshold ionization of van der Waals complexes: Binding energies of dibenzofuran·Ar and dibenzo-*p*-dioxin·Ar 649
Transition metal chalcogenide cations
The tropylium/benzylium ion dichotomy in the gas-phase reactions of transition metal chalcogenide cations with toluene 103
Transition metals
Oxidation induced ionization and reactions of metal carbide clusters (Nb, Zr, V, Ta) 615
Transition state
Ab initio study of the reaction $C_2H_4^+ \rightarrow C_2H_3^+ + H$ 149
Trapping potential
Theoretical comparison of closed and open ICR cells 761
Triple quadrupole
The electron affinity of cyclopropyl radical measured by the kinetic method 541
Tropylium ion
The tropylium/benzylium ion dichotomy in the gas-phase reactions of transition metal chalcogenide cations with toluene 103

Unimolecular reactions
Radiative energy loss from hot C_{60} molecules 595

Vibrational excitation
Kinetic energy losses and vibrational excitation in hyperthermal C_{60}-surface scattering: dependence on vibrational energy of the incident molecule 559
VUV peaks
VUV peaks in absorption spectra and photoion yield curves of polycyclic aromatic hydrocarbons and related compounds 35